

REMARKS

Claims 4 and 6-12 were pending in the application. Claims 4 and 8 have been amended. Claim 7 has been cancelled without prejudice or disclaimer. No claims have been added. Therefore, claims 4, 6, and 8-12 remain pending and are resubmitted for consideration.

35 U.S.C. § 103(a) Rejection – Chiba & Shibata

Claims 4 and 6-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,629,906 (hereinafter “Chiba”) in view of U.S. Patent Publication No. 2005/0160602 (hereinafter “Shibata”). The rejection should be withdrawn for at least the following reason.

Amended claim 4 calls for a method of producing a toroidal disc for a traction device that comprises, among other things:

preparing a circular steel body that has been subjected to a carbonitriding hardening/tempering process, the steel body having a concentric toroidal surface which is formed with a plurality of fine recesses each having a depth of smaller than 3 μm ... pressing a ball member against the toroidal surface with a pressing force that is smaller than 2000N; and moving the ball member on a given angular range of the toroidal surface in a direction perpendicular to the rotation axis of the circular steel body while pressing the ball member against the toroidal surface with the pressing force.

Claims 6 and 8-12 depend from claim 4. The references, taken together or separately, fail to teach or suggest the claimed invention. The Examiner correctly states that Chiba fails to provide “specific method steps used in roller burnishing.” *See* Office Action at p. 2. The Examiner contends that it would have been obvious to roller burnish the toroidal disc of Chiba with the method as taught by Shibata. *See* Office Action at p. 3. However, Shibata is not prior art. The present application was filed in the U.S. on September 15, 2003. Shibata was filed as a PCT application on May 14, 2003 published on November 20, 2003 as WO 03/095855. Thus, Shibata was published after the filing date of the present application. Therefore, Shibata does not qualify as prior art under 35 U.S.C. § 102(a). Shibata is not prior art under 35 U.S.C. § 102(e) because the PCT application (WO 03/095855) was not published

in English. *See* MPEP at 706.02(f). Thus, the rejection is improper. Applicants respectfully request reconsideration and withdrawal of the rejection.

35 U.S.C. § 103(a) Rejection – Chiba & Klocke

Claims 4 and 6-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chiba in view of the publication titled “Roller Burnishing of Hard Turned Surfaces” by Klocke et al. (hereinafter “Klocke”). The rejection should be withdrawn for at least the following reason.

Amended claim 4 calls for a method of producing a toroidal disc for a traction device that comprises, among other things:

pressing a ball member against the toroidal surface with a pressing force that is smaller than 2000N; and moving the ball member on a given angular range of the toroidal surface in a direction perpendicular to the rotation axis of the circular steel body while pressing the ball member against the toroidal surface with the pressing force.

The references, taken together or separately, fail to teach or suggest the claimed invention. Chiba discloses a traction drive rotary assembly 1 that includes input disk 3, output disk 5 and power rollers 6. However, Chiba does not disclose the method of producing and hardening a toroidal disc as disclosed in claim 4. Furthermore, the Examiner correctly states that Chiba does not provide specific method steps used in roller burnishing. *See* Office Action at p. 4. Klocke fails to cure the deficiencies of Chiba.

According to the Office Action, it would have been obvious to roller burnish the toroidal disc of Chiba with the claimed method steps as taught by Klocke to finish the traction surface. *See* Office Action at p. 4. Klocke does not appear to disclose a method of hardening a toroidal disc, as called for in claim 4. Klocke discloses a method and working parameters for obtaining a burnished operative surface. *See* Klocke at p. 419. Furthermore, there is no motivation to combine the method of Klocke to the disc of Chiba. There is no disclosure in Klocke of applying the burnishing method to a steel body having a working surface that is formed with a plurality of recesses each having a depth smaller than 3 μm . Rather, Klocke discloses a method to burnish or smooth out the peaks and not a method to *harden* those

peaks or projects. *See* Klocke at p. 420, col. 2. Thus, there is no motivation to combine Klocke with Chiba. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 6 and 8-12 depend from claim 4 and are allowable therewith, for at least the reasons set forth above, without regard to the further patentable subject matter set forth in these dependent claims.

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application, as amended, is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extension fees to Deposit Account No. 19-0741.

Respectfully submitted,

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